

What is Claimed Is:

1. A method comprising:
receiving a request requiring operating a physical layer transceiver according to a low-power operation, the physical layer transceiver configured for operating at a selected data rate, from one of a high-speed data rate and a low data rate, according to an autonegotiation routine;
5 resetting the selected data rate to the low data rate and restarting the autonegotiation for the low data rate in response to the request; and
responding to the request based on a determined result of the autonegotiation for the low data rate.
2. The method of claim 1, wherein the resetting and restarting step includes:
first writing a first value specifying the low data rate into a first prescribed register within the physical layer transceiver; and
second writing a second value specifying restarting the autonegotiation process into a second
5 prescribed register within the physical layer transceiver.
3. The method of claim 2, wherein the first prescribed register is an autonegotiation advertisement register for the physical layer transceiver.
4. The method of claim 3, wherein the responding step includes:
accessing an autonegotiation link partner ability register, configured for storing configuration information for a link partner in communication with the physical layer transceiver, upon completion of the autonegotiation for the low data rate; and
5 responding to the request based on determining whether the autonegotiation link partner ability register indicates the low data rate was selected.
5. The method of claim 2, wherein the second prescribed register is a media independent interface (MII) management control register.
6. The method of claim 2, wherein the resetting and restarting step further includes accessing the first prescribed register and the second prescribed register via a serial management data input/output path of a media independent interface.

7. The method of claim 1, wherein the receiving step includes receiving the request by an executable driver resource configured for controlling the physical layer transceiver, the executable driver resource performing the resetting and restarting step and the responding step based on receiving the request, the executable driver resource configured for identifying whether the physical layer transceiver communicates with a link partner according to one of autonegotiation for the low data rate and parallel detection, the controller identifying failure of the request based on detecting use of the parallel detection.

8. The method of claim 1, wherein the low data rate corresponds to a 10 Mbps data rate according to IEEE 802.3 half duplex protocol.

9. A network interface system including:
a physical layer transceiver configured for operating at a selected data rate, from one of a high-speed data rate and a low data rate, according to an autonegotiation routine; and
a controller configured for controlling the physical layer transceiver, the controller configured for resetting the selected data rate to the low data rate and restarting the autonegotiation for the low data rate, in response to a request requiring operating the physical layer transceiver according to a low-power operation, the controller configured for responding to the request based on a determined result of the autonegotiation for the low data rate.

10. The system of claim 9, wherein the physical layer transceiver includes a first prescribed register configured for storing autonegotiation advertisement information for the physical layer transceiver, the controller configured for resetting the selected data rate by writing a first value specifying the low data rate into the first prescribed register.

11. The system of claim 10, wherein the physical layer transceiver includes a second prescribed register configured for storing management control information, the controller configured for restarting the autonegotiation for the low data rate by setting a prescribed bit within the second prescribed register.

12. The system of claim 11, wherein the physical layer transceiver includes a third prescribed register configured for storing autonegotiation link partner ability information for a link partner in communication with the physical layer transceiver, the controller configured for accessing

the third prescribed register upon completion of the autonegotiation for the low data rate, to determine
5 whether the low data rate was selected.

13. The system of claim 12, wherein the physical layer transceiver includes a media independent interface having a management data input/output serial path, the controller configured for accessing the first prescribed register, the second prescribed register, and the third prescribed register via the management data input/output serial path.

14. The system of claim 9, wherein the low data rate corresponds to a 10 Mbps data rate according to IEEE 802.3 half duplex protocol.

15. The system of claim 9, wherein the controller is configured for identifying whether the physical layer transceiver communicates with a link partner according to one of autonegotiation for the low data rate and parallel detection, the controller identifying failure of the request based on detecting use of the parallel detection.